REMARKS

Claims 2-23, 32-36, 40 and 41 are all the claims pending in the application. Claims 2-10, 14-23, 31 and 32 remain rejected. Claims 11-13, 33-38, 40 and 41 are withdrawn from consideration. Claims 26 and 27 are cancelled. Claims 2 and 32 are amended to better define the structure of the invention, consistent with the Examiner's comments in the Advisory Action dated November 23, 2007.

Specifically, in the Advisory Action the Examiner asserts the recitation "an electronic switching device" in the claim preamble specifies an intended use or field of use and is treated as non-limiting since it has been held that in device claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The Examiner further notes that Fontana discloses testing the electrical characteristics of a semiconductor material and, in doing so, the semiconductor material is in a "device" (the material will inherently be the active semiconductor region) and the electrical conductivity of this "device" has a non-ohmic relationship (see page 1733). The Examiner asserts that it is well known in the art that the electrical conductivity of a "device" having a non-ohmic relationship has "switching" properties.

In concluding that the present claims do not define over the prior art, the Examiner states that "Applicants have not specifically claimed the structure of "an electronic switching device" and thus, the "electronic switching device" of the present application is not patentably distinct over the "electronic switching device" of Fontana."

Claim Rejections – 35 U.S.C. § 102

Claims 2-10, 14-23 and 32 remain rejected under 35 U.S.C. § 102 as being anticipated by Papademitrakopoulos (5,946,550). This rejection is traversed for at least the following reasons.

Claims 2 and 32

With respect to independent claims 2 and 32, they now expressly require the recognized essential features of a field effect transistor, which is the specific electronic switching device taught in the original specification and which also was recited in original claim 27.

Applicants submit that the skilled person in this art would necessarily recognize the reference in the original specification to the use of the material in an FET to mean a device including: (i) source and drain electrodes connected by a channel of said semiconductor material, and (ii) a gate electrode capacitively coupled to the semiconductor channel via a gate insulator layer. a metal complex that comprises a chain of cations and anions, wherein each anion and cation comprises a metal atom and the ions are bonded such that charge carriers of the metal atoms are delocalized along the chain.

Papademitrakopoulos does not disclose these expressly recited limitations, with reference to Figs. 6-8 and the disclosure at cols. 8-13. Further, there is no disclosure at the cited cols. 8-13 that teaches the formation of chains from metal-containing cations AND metal-containing anions, such as the $PT(NH_2R)_4$ divalent anions used in the material shown in Fig. 1 of the present application. The claim limitation clearly requires that "each anion and cation comprises a metal atom." In the absence of these limitations, the claims cannot be anticipated.

Claims 3-10, 14-23

These claims are patentable at least by virtue of their dependence from claim 2.

Claims 1-10, 14-23, and 32 are rejected under 35 U.S.C. § 102 as being anticipated by Fontana et al ("A Soluable Equivalent of the Supramolecular…"). This rejection is traversed for at least the following reasons.

Claims 2 and 32

With respect to independent claims 2 and 32, again they expressly require (i) source and drain electrodes connected by a channel of said semiconductor material, and (ii) a gate electrode capacitively coupled to the semiconductor channel via a gate insulator layer. a metal complex

that comprises a chain of cations and anions, wherein each anion and cation comprises a metal atom and the ions are bonded such that charge carriers of the metal atoms are delocalized along the chain.

The claims are directed to an electronic device that is operative to switch. The recitation of the elements of the claimed "electronic switching device" forms the basis for distinguishing over the prior art to Fontana, as there is no device, especially an electronic switching device, taught in the reference. Applicants are relying on this limitation to distinguish over Fonatana.

Again, the Fontana reference is simply a disclosure of the characteristics of a film, and has no teaching directing one of ordinary skill to the use of the film in a switching device, especially a transistor or FET. In the absence of such teaching, the claims cannot be anticipated.

Applicant is the first to disclose the technical finding that the level of mobile ionic impurities in a material of the type described in the Fontana et al article can be sufficiently low that the formation of an accumulation layer of field-induced charge carriers at the active semiconductor/dielectric interface of a transistor can be achieved. This is a significant technical teaching for a switching device, as claimed. This teaching is not found in the Fontana at al article. Moreover, Applicants submit that it would not have been obvious without this technical teaching. Thus, there would have been no reason to use the material of the Fontana et al article in a transistor such as that described in Papademitrakopoulus.

Claims 3-10, 14-23

These claims are patentable at least by virtue of their dependence from claim 2.

Conclusion

In sum, Applicants have defined the known elements of the known electronic switching device as the environment for the key elements of the claimed invention. Nothing of this sort is considered in the prior art.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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